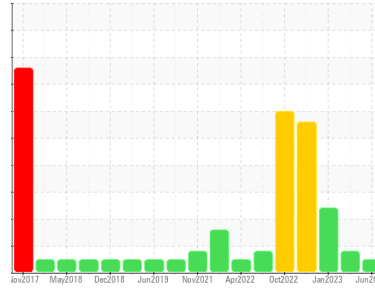




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
801074

Component
Diesel Engine

Fluid
PETRO CANADA DURON XL SYN BLEND 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0077591	GFL0077580	GFL0063773
Sample Date	Client Info		30 Jun 2023	13 Apr 2023	17 Jan 2023
Machine Age	kms	Client Info	244955	12463	11897
Oil Age	kms	Client Info	0	566	515
Oil Changed	Client Info		N/A	Changed	N/A
Sample Status			NORMAL	MARGINAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history 1	history 2
Fuel	WC Method	>5	<1.0	▲ 3.4	▲ 6.8
Glycol	WC Method		NEG	0.0	0.0

WEAR METALS

	method	limit/base	current	history 1	history 2	
Iron	ppm	ASTM D5185(m)	>100	31	30	28
Chromium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	<1	<1
Silver	ppm	ASTM D5185(m)	>3	<1	0	0
Aluminum	ppm	ASTM D5185(m)	>20	3	4	5
Lead	ppm	ASTM D5185(m)	>40	0	<1	<1
Copper	ppm	ASTM D5185(m)	>330	2	6	6
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Antimony	ppm	ASTM D5185(m)		0	<1	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
Beryllium	ppm	ASTM D5185(m)		0	0	0
Cadmium	ppm	ASTM D5185(m)		0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2	
Boron	ppm	ASTM D5185(m)	1	3	2	2
Barium	ppm	ASTM D5185(m)	1	0	0	0
Molybdenum	ppm	ASTM D5185(m)	60	60	58	67
Manganese	ppm	ASTM D5185(m)	1	<1	<1	<1
Magnesium	ppm	ASTM D5185(m)	1010	938	869	837
Calcium	ppm	ASTM D5185(m)	1070	1043	1050	996
Phosphorus	ppm	ASTM D5185(m)	1150	991	956	932
Zinc	ppm	ASTM D5185(m)	1270	1159	1092	1081
Sulfur	ppm	ASTM D5185(m)	2060	2336	2293	2314
Lithium	ppm	ASTM D5185(m)		<1	<1	<1

CONTAMINANTS

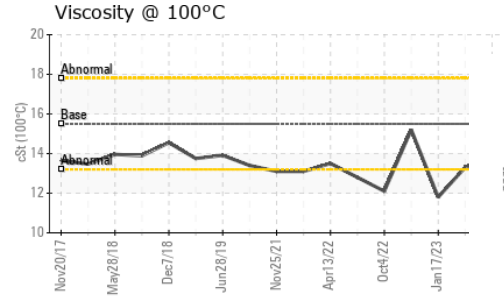
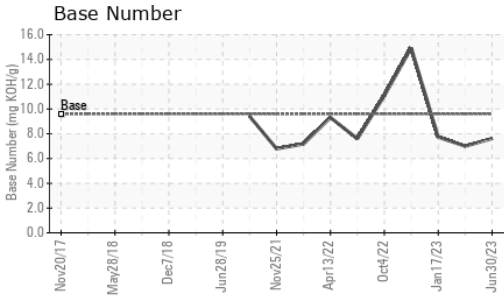
	method	limit/base	current	history 1	history 2	
Silicon	ppm	ASTM D5185(m)	>25	9	7	8
Sodium	ppm	ASTM D5185(m)		50	133	▲ 420
Potassium	ppm	ASTM D5185(m)	>20	3	5	2

INFRA-RED

	method	limit/base	current	history 1	history 2	
Soot %	%	ASTM D7844*	>3	0.6	0.5	0.2
Nitration	Abs/cm	ASTM D7624*	>20	9.9	10.7	10.5
Sulfation	Abs/.1mm	ASTM D7415*	>30	22.1	22.7	21.4



OIL ANALYSIS REPORT

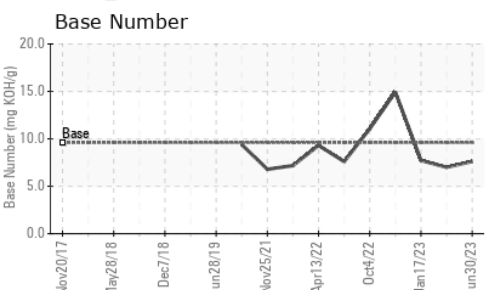
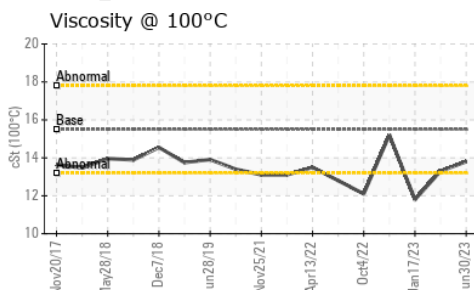
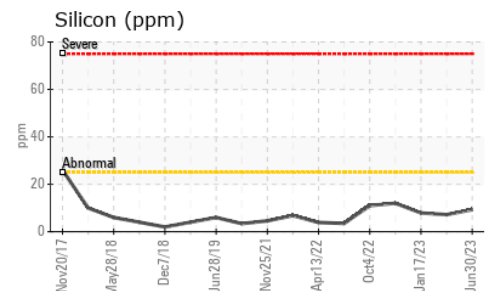
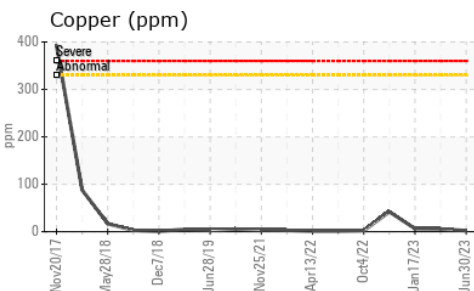
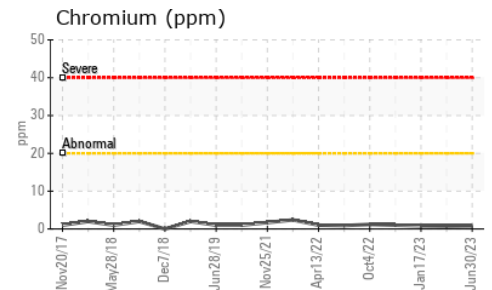
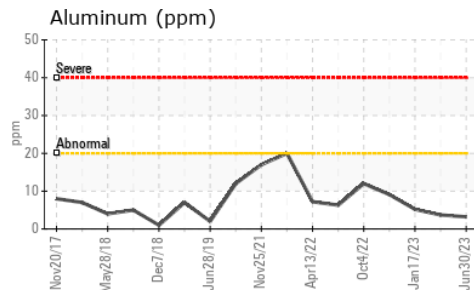
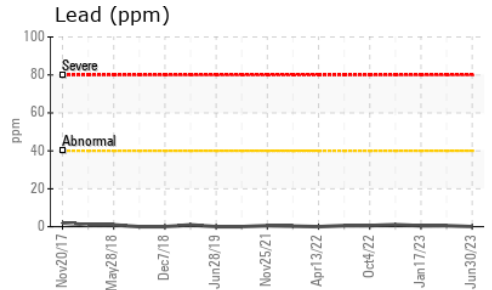
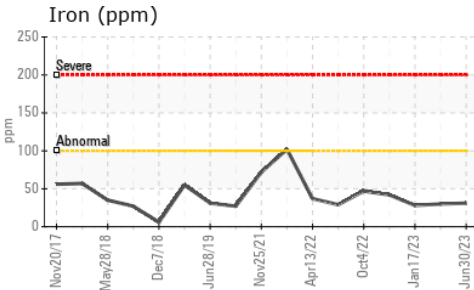


FLUID DEGRADATION		method	limit/base	current	history 1	history 2
Oxidation	Abs./1mm	ASTM D7414*	>25	19.2	19.7	17.3
Base Number (BN)	mg KOH/g	ASTM D2896*	9.6	7.62	7.00	7.73

VISUAL		method	limit/base	current	history 1	history 2
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history 1	history 2
Visc @ 100°C	cSt	ASTM D7279(m)	15.5	13.8	13.3	▲ 11.8

GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 550 - Rocky View County
Sample No. : GFL0077591 **Received** : 06 Jul 2023
Lab Number : 02568173 **Diagnosed** : 07 Jul 2023
Unique Number : 5605219 **Diagnostician** : Wes Davis
Test Package : MOB 2

To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.
 Contact: GFL Calgary calgarymaintenance@gflenv.com
 T: (403)369-6163